

Towards gravitationally assisted negative refraction of light by vacuum

This article has been downloaded from IOPscience. Please scroll down to see the full text article.

2004 J. Phys. A: Math. Gen. 37 12093

(<http://iopscience.iop.org/0305-4470/37/50/C01>)

View [the table of contents for this issue](#), or go to the [journal homepage](#) for more

Download details:

IP Address: 171.66.16.65

The article was downloaded on 02/06/2010 at 19:49

Please note that [terms and conditions apply](#).

Corrigendum

Towards gravitationally assisted negative refraction of light by vacuum

A Lakhtakia and T G Mackay 2004 *J. Phys. A: Math. Gen.* **37** L505–510

Some minor errors appeared in our original letter; none of these affect our conclusions. A list of corrections follows.

The constitutive relations (5) and (6) should correctly read as

$$\underline{D} = \epsilon_0 \underline{\gamma} \cdot \underline{E} - \underline{\Gamma} \times \underline{H}, \quad (5)$$

$$\underline{B} = \mu_0 \underline{\gamma} \cdot \underline{H} + \underline{\Gamma} \times \underline{E}. \quad (6)$$

The inequality (38) which signals NPV propagation for the k^+ wavenumber should correctly read as

$$-\Gamma \cos \theta > \sqrt{\epsilon_0 \mu_0 \gamma_x \gamma_y - \frac{\gamma_x}{\gamma_z} \Gamma^2 \sin^2 \theta}. \quad (38)$$

The inequality (39) which signals NPV propagation for the k^- wavenumber should correctly read as

$$\Gamma \cos \theta > \sqrt{\epsilon_0 \mu_0 \gamma_x \gamma_y - \frac{\gamma_x}{\gamma_z} \Gamma^2 \sin^2 \theta}. \quad (39)$$

In deriving (38) and (39), we used the fact that $\gamma_{x,y,z} > 0$ by virtue of the signature of $\tilde{g}_{\alpha\beta}$.

doi:10.1088/0305-4470/37/50/C01